**Algebra Review #1 Operations, Equations, and Slope Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hr\_\_**

**1. Find the next three terms of the sequence:** 1, 5, 9, \_\_\_\_, \_\_\_\_, \_\_\_\_

**Simplify (PEMDAS):**

2.  3. (2)(-4)(5) 4.  5. 6 – 4x + 7x – 1

**Evaluate if x = 2 and y = –3**

6. 5x + y 7. 3x – 4y 8. –y + 15 9. -7x+ 3x

**10. What are the 3 types of functions (equations) we studied this year?**

A.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ B.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ C.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Below are 3 scatter plots. Write which type of equation would represent the best fit.**

11.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 12. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 13. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



**Tell what type of equation is shown.**

14. y = 3x² + 2x – 1 15. y = 4x + 3 16. 

**Solve the following linear equations:**

17. x – 5 = – 4 18. 3x – 19 = 32 19. 5x – 4 = –7x + 32

20. 23 – 8x = 5(x + 2) 21. 2 + 3(4x – 1) = 8x + 11 22.  23. 

1. You join a magazine club. You pay a fee of $5 a month plus $.50 for every magazine you order. **Find the equation of the line that models this situation**, using y for the total cost to belong to the club and x for the number of magazines you order.

**Solve the following systems of equations.**

Substitution Elimination/combinations (adding them together)

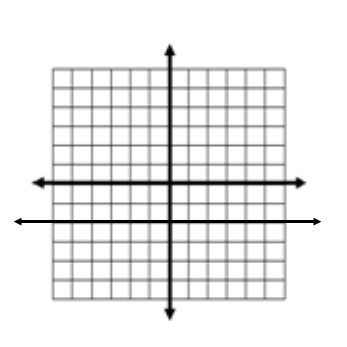
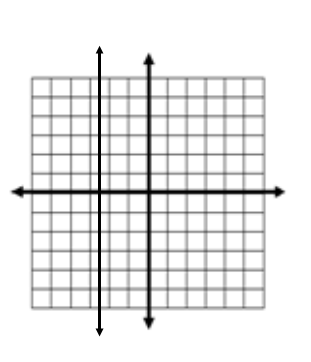
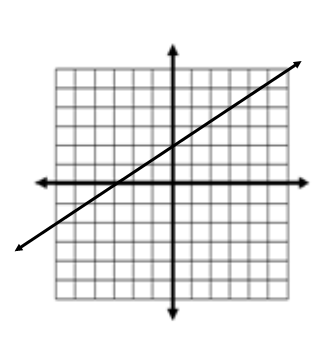
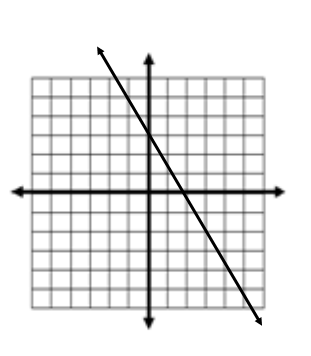
25. 15x – 5y = 30 26. x + y = 5

y = 2x + 3 -x + y = 3

**SLOPE – find the slopes of the graphs, equations, scenarios, and two points.**

**A line could have the following types of slopes: positive, negative, zero, or undefined.**

**Match the types of slopes with the graphs below.**



27.\_\_\_\_\_\_\_\_\_\_\_ 28.\_\_\_\_\_\_\_\_\_\_\_ 29.\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 30.\_\_\_\_\_\_\_\_\_\_\_\_\_

**31. What is the x and y intercept for problem #28?**  x-intercept = \_\_\_\_ y-intercept = \_\_\_\_

**Find the slope of the lines that contain these points.** Remember the slope formula m = 

32. (-3, -2) (-1, 8) 33. (2, -8) (-5, -1) 34. (-1, -2) (-1, 8) 35 . (11, 5) (9, 5)

36. **Find the slope of this equation (remember you have to put it into slope-intercept form**): 4x + 3y = 12

**Graph each linear equation.**

37. y = 2x + 1 38. y = -3x – 2 39. y = x + 2

